

A National Biological Information Infrastructure Overview

The National Biological Information Infrastructure (NBII) <www.nbii.gov> is a broad, collaborative program to provide increased access to data and information on the nation's biological resources.

Nodes are interconnected entry points that, taken together, are forming the NBII. The establishment of these nodes is helping the NBII provide a vast community of users with rapid access to information on the nation's biological resources.

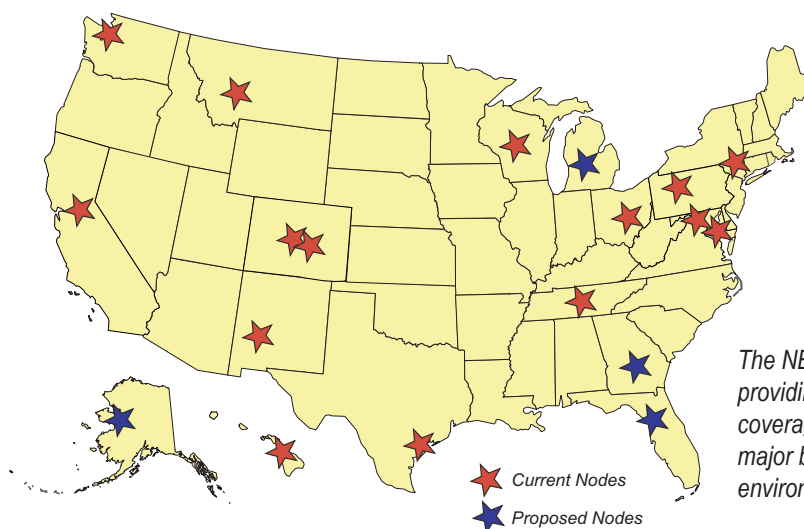
A Closer Look at the NBII and NBII Nodes

The NBII Program was created in 1993 based on the recommendation of a special panel convened by the National Research Council to examine critical national biological resource issues.

In 1998, the need for the NBII was reaffirmed by a team of internationally renowned scientists (including a Nobel prize winner), who also recommended the creation of NBII "nodes" as focal points for various biological and regional issues. Today, work on the nodes is underway, in collaboration with partners from every sector of society. There are three types of nodes:

Regional – Have a geographic orientation and represent a regional approach to local data issues, data collectors, and owners.

Thematic – Focus on a particular biological issue, such as bird conservation, providing the support and infrastructure to help address these issues. Such issues often cut across multiple geographic areas.



The NBII nodes are providing national coverage on a range of major biodiversity and environmental issues.

Infrastructure – Devoted to issues such as the creation, adoption, and implementation of standards through the development of common tool suites, hardware and software protocols, and geospatial technologies to achieve interoperability and transparent retrieval across the entire NBII network.

The NBII Program initiated 10 nodes in FY2001 and continued to develop these as well as to begin new prototypes in FY2002. The initial 10 nodes as well as more recently added nodes are described below and on the back of this sheet. Current nodes are designated by the red stars on the map above. Pending new funding, several new nodes are planned, shown in blue stars on the map:

- Southeast-Caribbean (FL) - To link databases from the Southeast United States and Caribbean, and build applications to highlight issues including coral reef decline, coastal and upland development effects on ecosystems, Everglades

restoration, and coastal erosion;

- Alaska (AK) - Devoted to the wildlife and natural resource issues of Alaska;
- Amphibian Decline & Deformity (GA) - To address the decline and deformities of amphibians as sentinel species; and
- Great Lakes (MI) - To integrate data and projects on Great Lakes aquatic resources into a Web-based data and tool resource.

The NBII National Program Office is located in the U.S. Geological Survey (USGS), the nation's principal natural science agency.

For More Information

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NBII Node Overview

Regional

State(s)	Partner(s)	Purpose:
California Information Node California Node Manager: Jennifer Pollock Phone: 303-202-4260	Univ. of California at Davis	Support information systems addressing interagency biodiversity and watershed assessments in California, the Pacific Coast, and desert ecosystems.
Central Southwest/Gulf Coast Information Node Texas Node Manager: Dan Phillips Phone: 703-648-4337	Houston Advanced Research Center, University of Texas	Address the biodiversity aspects of sustainable development issues within the Central Southwest and Gulf Coast through research into the applications of new spatial digital data analysis and visualization technologies. (over, please)

NBII Node Overview

	State(s)	Partner(s)	Purpose:
Regional	<i>Mid-Atlantic Information Node</i> Virginia Node Manager: Gabrielle Canonico Phone: 703-648-4073	Fish and Wildlife Information Exchange	Provide online access to urban biodiversity information in the Metropolitan Washington, DC area; will expand to other regional issues.
	<i>Mountain Prairie Information Node</i> Montana Node Manager: Jennifer Pollock Phone: 303-202-4260	Montana State University, USGS Northern Rocky Mountain Science Center, U.S. Forest Service	Support natural resource management decisions by providing scientific information about wildlife and its relationship to habitat, human activities, and ecosystem processes in the Greater Yellowstone Area.
	<i>Northeast Information Node</i> New York Node Manager: Marcia McNiff Phone: 703-648-4078	Center for International Earth Science Information Network	Provide databases for urban ecology, investigating the cause and effect of invasive species, and tracking the movement of disease-causing agents.
	<i>Pacific Basin Information Node</i> Hawaii Node Manager: Mark Fornwall Phone: 808-875-2435	University of Hawaii, The Nature Conservancy, Bishop Museum, USGS Pacific Island Ecosystems Research Center	Address invasive species and endangered species issues within the islands and Pacific Rim. Enhance resource data delivery and imaging to federal and state land management agencies and state planning agencies.
	<i>Pacific Northwest Information Node</i> Washington and Oregon Node Manager: Jennifer Pollock Phone: 303-202-4260	University of Washington, USGS Forest and Rangeland Ecosystem Science Center	Offer information to evaluate strategies to stem the decline of salmon in the Pacific Northwest as well as the management of the region's forest ecosystems.
Thematic	<i>Southern Appalachian Information Node</i> Tennessee Node Manager: Jean Freney Phone: 703-648-4311	Univ. of Tennessee, Oak Ridge National Lab, Information International Associates	Develop regionally-oriented information content and global thematic focus on invasive species. Take a lead in information analysis and evaluation in the context of biodiversity and ecosystems informatics.
	<i>Southwest Information Node</i> New Mexico Node Manager: Julie Prior-Magee Phone: 505-646-1084	Univ. of New Mexico, New Mexico State University, USGS Fort Collins Science Center	Focuses on issues relevant to the region, such as desert ecosystems.
	<i>Bird Conservation Node</i> Maryland Node Manager: Elizabeth Martin Phone: 352-846-0630	International Association of Fish & Wildlife Agencies, U.S. Fish and Wildlife Service, USGS Patuxent Wildlife Research Center	Help implement the North American Bird Conservation Act. Provide a location for the coordination, management, and dissemination of data and information related to North American bird fauna.
	<i>Fisheries and Aquatic Resources Node</i> Pennsylvania Node Manager: Doug Beard Phone: 703-648-4215	USGS Wellsboro R&D Lab, Penn State University	Provide fisheries information in a single location for everything from the latest research ... to real-time streamflow data ... to fishing statistics and species profiles.
Infrastructure	<i>Invasive Species Information Node</i> Colorado Node Manager: Annie Simpson 703-648-4281	National Institute of Invasive Species Science	Integrate invasive species data at a national level, and support real-time and predictive modeling, early warning, and species identification.
	<i>Wildlife Disease Information Node</i> Wisconsin Node Manager: Vivian Nolan Phone: 703-648-4258	USGS National Wildlife Health Center	Develop collaborative national database of wildlife mortality events to facilitate the tracking and study of emerging wildlife diseases such as West Nile virus and Chronic Wasting Disease.
	<i>Knowledge Integration Node</i> Ohio and Maryland Node Manager: Mike Frame Phone: 703-648-4164	Cambridge Scientific Abstracts (CSA), USGS Center for Biological Informatics	Provide technology and information science capabilities, including knowledge integration and engineering, information gateway expertise, and education/communication offerings aligned with the needs of targeted constituencies.
	<i>Network Standards and Technology Node</i> Colorado Node Manager: Mike Frame Phone: 703-648-4164	Columbia University, USGS Center for Biological Informatics	Provide an integrating function for NBII enterprise that will offer a mechanism to address user accessibility, Internet sociology, and enterprise-wide user specification and evaluation activities.